

Organizational and leadership factors affecting the quality of nurse performance in hospitals

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ABSTRACT

The purpose of this study was to analyze organizational and leadership factors that affect the quality of nurse performance in hospitals. A cross-sectional study in 162 respondents conducted at Universitas Airlangga Hospital in May-June 2021. Variable organizational factors (resources, rewards, work structure, and design), leadership factors (competence, job meaning, autonomy, and impact), and the quality of nurse performance were measured using a questionnaire that had been modified by the researcher and declared valid (r table=0.351-1.000) and reliable (0.919-0.980), the data were then analyzed using logistic regression. Organizational factors consisting of resources ($p=0.001$), rewards ($p=0.012$), structure ($p=0.029$), and work design ($p=0.013$) showed a significant relationship with the quality of work, as well as organizational factors consisting of competence ($p=0.043$), job meaning (0.035), autonomy (0.021) and impact (0.025). The strongest results are shown in the quality of nurse resources. Improving the quality of performance of nurses must pay attention to organizational factors and influencing leadership factors, with the most dominant factor being the quality of nurse resources.

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1. INTRODUCTION

Improving the quality of health services is closely related to nurses who have high performance, because nurses are the most dominant human resources in health service agencies [1]. One of the factors that can determine the success of nurses performance in hospitals is organizational and leadership factors because they are the driving force for all existing resources within an organization [2]. High performance in achieving organizational goals is how leadership creates organizational culture effectively and motivates employees to improve their performance [3]. Many leadership styles are applied in various workplaces where these leadership styles can only inspire and motivate their subordinates. This will cause subordinates to lack knowledge and autonomy in their work, which will affect the performance of subordinates in carrying out, exploring and implementing their ideas in doing their work [4].

The prevalence of nursing performance abroad and in Indonesia itself is still far from optimal. This is evidenced by the results of research conducted in two public hospitals in the Harari, Eastern Ethiopia, which stated that 48.33% of nurses showed poor nurse behavior about nurses who were less responsive in responding to patients, so that as many as 37.10% of patients felt dissatisfied with the services and performance of nurses provided [5]. Research conducted in one of the hospitals in Indonesia shows that the performance of nurses is still not 100% in the good category, as evidenced by 165 nurses, 13.9% have poor performance and 7.3% of

nurses show dissatisfaction with their performance [6]. Based on data from the Indonesian National Nurses Association, around 50.9 percent of nurses working in four provinces in Indonesia experience work stress, often feel dizzy, and tired, unable to rest due to high workloads and low salaries without adequate incentives, this has an impact on nurse performance, of which 55.4% are still in the moderate category [7]. Based on research data analysis, the results of hypothesis testing obtained that leadership style has a positive and significant effect on improving nurse performance [8].

There are many elements in achieving company goals that are important in their fulfillment, including the element of leadership [9]. If the available resources are not managed properly, they will not get the planned goals, so the role of the leader is very important so that they can use their authority and leadership to achieve a goal [10]. The leadership of a leader plays a very important role in encouraging employees to further develop and advance the organization [11].

The performance of nurses can be influenced by the characteristics of a nurse in terms of age, gender, length of work, education and marital status [2]. The low performance of nurses will have an impact on efforts to maximize patient safety improvements so that unwanted events do not occur [4], [12]. This situation is supported by several conditions, namely that nurses do more non-nursing tasks than nursing duties, lack of training received by nurses, not yet implemented job descriptions properly and have not carried out an optimal supervision and direction system from superiors [13], [14]. The supervisory and directive system from the superior, in this case the head of the room, is often closely related to the leadership style adopted by the leader. However, in improving the performance of nurses, there are still many leaders who are only oriented to the goals and achievements of a company or hospital, but are not oriented to employee knowledge. So that the knowledge of nurses regarding new things or the latest innovations is still relatively low [15]. The purpose of this study is to analyze the organizational and leadership factors affecting the quality of nurse performance in hospitals.

2. METHOD

2.1. Research design

Quantitative cross-sectional research was conducted in Universitas Airlangga Hospital from May-June 2021 on nurses who were provided care for patients in hospital. The nurse who became the respondent had the criteria: i) worked as an implementing nurse in the room that was used as the research site; ii) minimum education D3 nursing; iii) nurse who works for at least one year; iv) not a nurse who is still a trainee; v) not on a permit or study assignment. The researcher first gave a clear explanation of the research title, objectives, benefits, duration, procedures, adverse events, and incentives from the research to the respondents, then the respondents filled out informed consent voluntarily as a sign of willingness to be part of the research.

2.2. Respondents' recruitments

The sampling technique in this study is probability sampling with cluster sampling type, namely grouping samples based on the area, region or research location [16]. The locations that become clusters are inpatient rooms (class 1, 2, and 3), intensive 1, intensive care unit, outpatient, operation room, neonate room, hemodialysis room, emergency room and central surgical installation room. We have determined the large sample using the rule of the thumb, namely determining the large sample for the research development model, where the formula is in accordance with the research development model that has been carried out by previous researchers [17]. A total of 162 respondents were given an online questionnaire by filling out a Google form and if they did not fill it out completely, they were considered to have resigned as respondents. Calculating the rate of filling out the questionnaire shows the number 100%, so that all respondents are willing to fill out the given questionnaire.

2.3. Data collection

The independent variables in this research are organizational factors (resources, rewards, work structure, and design) and leadership factors (competence, job meaning, autonomy, and impact), while the dependent variable is the quality of nurse performance. Instruments in data collection using questionnaires, and sociodemographic variables were measured using questions of age, gender, area of origin, religion, ethnicity, length of work, marital status, education, and income. The results of the filling will be given a number to provide coding for each category. Collecting organizational factors using a questionnaire Human Resources Management Policies and Practices Scale [18], Reward Management System Scale [19], Team Collaborative Leadership [20], The Work Design Questionnaire (WDQ) [21]. While collecting leadership factors using Medical Leadership Competency Framework (MLCF) [22], The Work and Meaning Inventory (WAMI) [23], Empowering Leadership Questionnaire (ELQ) [24], and Multifactor Leadership Questionnaire (MLQ) [25]. Quality of nursing performance was measured using a nursing performance questionnaire. Assessment of all questionnaires using a 4-point Likert scale starting from 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree), on

unfavorable questions, the assessment is reversed. The questionnaire has been tested for validity and declared valid and reliable, proven by test results ($r_{table}=0.351-1.000$) and reliable (Cronbach's alpha=0.919-0.980). In the research, the researcher collected data directly. The first author was responsible for compiling the instruments and concepts in the research, the second author reviewed and analyzed the research results, the third and last author carried out research in the field, analyzed the data and compiled the research results.

2.4. Data analysis

This study analyzed using descriptive and inferential analysis. A compliance test for normal distribution was applied using Kolmogorov-Smirnov test. Descriptive value such as means, standard deviations, frequencies, and percentage was analyzed with frequent distribution, Chi-square test was performed to compare the groups concerning demographic, independent and dependent variables. The data was analyzed using logistic regression test with a statistically significant p-value <0.05. The analyzed were conducted with SPSS® for Windows® version 22.

2.5. Ethical clearance

This research was first submitted to the ethics committee to test the validity of the data and the feasibility of the study. The ethical test was conducted at the Universitas Airlangga Hospital, Surabaya. The researcher maintained the research ethics of the respondents and managed to get a certificate of ethical feasibility number 125/KEP/2021.

3. RESULTS AND DISCUSSION

3.1. Sociodemographic characteristics of respondents

Socio demography of nurses showed that the age characteristics were mostly in the productive age, namely 25-30 years as many as 87 (52.7%), the most dominant gender characteristics were women as many as 97 (59.9%) respondents. The characteristics of the majority of education are Bachelor of Nursing (Ners) as many as 166 (71.6%), the characteristics of marital status are mostly unmarried as many as 106 (65.4%), respondents with length of work ranging from 1-5 years as many as 106 (65.4%) respondents as presented in Table 1.

Organizational factors consisting of resource indicators showed the most dominant results in the sufficient category, namely 134 (82.7%) respondents, the reward variable showed sufficient results as many as 122 (75.3%) respondents, the structure variable mostly showed results with sufficient category as many as 131 (80.9%) respondents and the work design variable shows the results with sufficient category as many as 133 (82.1%) respondents as shown in Table 2. While the leadership factor consisting of competence shows the highest results in the sufficient category, which is 137 (84.6%) respondents, the job meaning variable shows the results in the sufficient category as many as 131 (80.9%) respondents, on the autonomy variable most of the shows the results with sufficient category as many as 130 (80.2%) respondents and the impact variable shows the most dominant results with sufficient category as many as 128 (79.0%) respondents as presented in Table 2. The quality of nursing performance shows the results of 67.3% in the sufficient category.

Table 1. Sociodemographic characteristics of respondents (n=162)

Sociodemographic	n	%
Age		
20-25 years	24	14.8
26-30 years	87	53.7
31-40 years	49	30.2
>40 years	2	1.2
Gender		
Male	65	40.1
Female	97	59.9
Educational background		
Diploma nursing	42	25.9
Bachelor nursing	116	71.6
Master nursing	4	2.5
Marital status		
Married	56	34.6
Single	106	65.4
Length of work		
1-5 years	106	65.4
6-10 years	48	29.6
11-15 years	7	4.9

Table 2. Characteristics of organizational factors, leadership factors, and quality in nursing performance

Variable	n	%
Organizational factors		
Resources		
Good	13	8.0
Moderate	134	82.7
Less	15	9.3
Rewards		
Good	25	15.4
Moderate	122	75.3
Less	15	9.3
Structure		
Good	12	7.4
Moderate	131	80.9
Less	19	11.7
Work design		
Good	15	9.3
Moderate	133	82.1
Less	14	8.6
Leadership factors		
Competency		
Good	20	12.3
Moderate	137	84.6
Less	5	3.1
Job meaning		
Good	20	12.3
Moderate	131	80.9
Less	11	6.8
Autonomy		
Good	23	14.2
Moderate	130	80.2
Less	9	5.6
Impact		
Good	15	9.3
Moderate	128	79.0
Less	19	11.7
Quality performance		
Good	45	27.8
Moderate	109	67.3
Less	8	4.9

Based on the results of analysis using logistic regression on the independent variables in this research are organizational factors (resources, rewards, work structure, and design) and factors (competence, job meaning, autonomy, and impact), while the dependent variable is the quality of nurse performance. After all predictor factors related to quality of nursing performance were tested simultaneously, the results showed that organizational factors consisting of resources ($p=0.001$), rewards ($p=0.012$), structure ($p=0.029$), and work design ($p=0.013$) showed a significant relationship with the quality of work, as well as organizational factors consisting of competency ($p=0.043$), job meaning (0.035), autonomy (0.021) and impact (0.025). The strongest results are shown in the quality of nurse resources. The factors that were most strongly associated with the quality of nursing performance were resources ($t\text{-value}=2.737$; $p=0.001$) as presented in Table 3.

Table 3. The biggest predictor factors on organizational and leadership factor affecting the quality of nurse performance in hospital

Variable	t-value	p-value	95% confident interval	
			Lower	Upper
Resources	2.727	0.001	0.014	0.088
Rewards	2.370	0.012	0.005	0.245
Structure	0.166	0.029	0.065	0.065
Work design	0.922	0.013	0.032	0.035
Competency	0.399	0.043	0.040	0.033
Job meaning	2.280	0.035	0.025	0.068
Autonomy	3.845	0.021	0.071	0.188
Impact	3.443	0.025	0.036	0.148

3.2. Organizational factors affecting the quality of nurse performance

The results showed that one of the pillars of the success of the quality of nurse performance is organizational factors, which in this study were measured using indicators including resources, rewards,

structure, and work design. Resources show sufficient results which are measured using the parameter, namely the potential value of an individual in completing a responsibility in the form of tasks and work which includes recruitment and selection, involvement, working conditions, training, competency-based performance appraisal, compensation, and rewards. This resource with sufficient competence is because there are still many nurses who assess the lack of opportunities provided by hospital management to attend seminars and training that are useful for increasing the latest scientific knowledge and improving skills related to the field of nursing [26], [27]. The demands for this need will increase in line with technological capabilities and high demands for professionalism because the continuous development of human resources will prevent the decline in knowledge and competence [28]. Robbins and Judge explain that competence has a positive influence on efforts to create performance and contributes to the success of an organization in achieving its vision and mission [29]. Competence has a positive influence on efforts to create performance and contributes to the success of an organization in achieving its vision and mission [29]. In line with the research that has been done the availability of continuing education and professional development as things that are felt to be important for nurses who will be able to increase their competence and satisfaction with their work, so that the quality of nurse performance will be better [30]. Thus, the increase in resources in accordance with competence should receive attention from both the individual himself and the management.

The results of the study indicate that the reward for getting results is in the sufficient category which is as a recompense for services and work that has been done. This means that the more appropriate rewards given will be able to improve the quality of the nurse's performance. Rewards based on achievement can improve a person's performance, namely the employee salary system based on work performance [31], the best compensation in the form of salaries, incentives, or bonuses will have an effect on increasing work motivation which in the end directly improves the quality of their performance [32]. This is in line with research that has been conducted that financial and non-financial rewards can be used as organizational tools to increase nurse motivation, able to guarantee the satisfaction of organizational members, thereby triggering members in the organization to behave, act, and work productively [33]. Without adequate compensation, employees are very likely to leave their institutions, as a result of dissatisfaction with salaries, decreased performance, increased complaints, causes of strikes at work, and leads to high levels of absenteeism and employee turnover [34]. Conversely, if there is an overpayment of salaries, it will also cause agencies and individuals to reduce their competitiveness, feelings of guilt, and an uncomfortable atmosphere among employees.

The results of the research on the structure indicators describe sufficient results about an arrangement and relationship between each part of the existing staff position in an organization which includes focusing on goals, ensuring a collaborative climate, building commitment and trust, showing ways, setting priorities, and managing performance. This means that the better the organizational structure plan, the better the quality of nurse performance will increase [35]. The factors that affect the performance of personnel, organizational factors which include the existence of an organizational structure that has an indirect effect on attitudes, individual performance in an organization [36]. Gibson's theory has the same idea as research that has been conducted that a good organizational structure will influence the quality of nurses' work in hospitals [37]. The organizational structure must be implemented by managers or leaders to move activities in realizing organizational goals. Thus, this organizational structure must always be evaluated to ensure consistency in the implementation of effective and efficient health service delivery to achieve a higher level of health.

The results showed sufficient results on work design indicators regarding the determination of one's work activities, task characteristics, knowledge characteristics, social characteristics, and work contexts. The results of this study agree with other study who argue that individuals can only be motivated to work better according to the tasks and workload they receive [38]. Nurses with good performance will show high creativity and initiative in a job, there will always be new job descriptions emerging from nurses' ideas, so that work will be more effective and not monotonous [39]. The results of this study indicate that organizational factors with indicators namely work design are important indicators that affect work behavior and productivity, especially in the quality of nurse performance in hospitals, so this can be improved through optimizing work designs or redesigning work that is more appropriate [40]. The way that can be done to improve work design is to provide changes to existing work patterns to become newer and more innovative. There are several ways that can be done, namely job rotation by providing rotations to several nurses who are not able to maximize their work and are replaced with nurses according to their expertise, managerial needs to provide an evaluation of the specificity of the skills possessed by nurses, job enrichment, namely by evaluating and updating the steps in existing jobs, and job enlargement (job expansion) that is in accordance with the position of each nurse's job, so that no nurse feels limited in doing work and do self-development.

3.3. Leadership factors affecting the quality of nurse performance

The leadership factor also plays a major role in achieving the optimal quality of nurse performance where the leadership factor has indicators of competence, job meaning, autonomy, and impact. The results of

the study indicate that the category is sufficient on the competency indicator which is the ability or skill of a nurse in carrying out a job in a particular field which includes setting directions, working with others, managing services, improving services, and demonstrating personal quality. In line with Stoner's theory that leadership can be defined as a process of directing and influencing the activities of a group of members whose tasks are interconnected [41]. Furthermore, other opinions reveal that leadership is the influence of individuals in certain situations directly through the communication process to achieve general and specific goals [42], [43]. Another theory provides an understanding by defining leadership as "a mutually influencing relationship between leaders and followers (subordinates) who want real changes including changes in employee performance that reflect common goals [44]. It is also supported by research conducted that nursing leaders can influence work morale, job satisfaction, security, quality of work life, and especially the level of performance of an organization in a hospital [45]. The ability and skill of the leader in directing is an important factor in the effectiveness of managers [46]. If the organization can identify the qualities associated with leadership, the ability to select effective leaders will increase, and if the organization can identify the behaviors and techniques of effective organizational leadership, the various behaviors and techniques will be learned by employees, so that the techniques and competencies of effective leaders can influence employees in improving the quality of their performance, especially in a hospital environment.

The results of the study indicate that the category is sufficient on the job meaning indicator about individual choices and experiences with the organizational context and the environment in which individuals work which includes developing themselves, expressing potential, and making contributions. Job meaning is the value of a work goal that is assessed in relation to the goals or standards of the individual concerned [47]. This includes how sensitive employees are to the goals of the work for which they are responsible, and how much they are able to influence the quality of their work [48]. Lack of attention to every problem that nurses have, lack of support that makes nurses progress, lack of opportunities for nurses to express opinions, and lack of objective performance appraisals, will cause a bad impression and an unfair function of the existing leadership, thus will have an impact on satisfaction. With job meaning the nursing leadership function will be more effective because it will implement a creative pattern, oriented to employees and service systems, so that the quality of nurse performance will be more optimal.

The results of the research on the autonomy indicator show sufficient results about having the ability and belief that individuals are able to think logically and decide things in the form of problems or solutions which include leading by example, participatory decision-making, coaching, informing, and showing concern or interacting with the team. Based on leadership theory, it is stated that a leader of an organization must be able to bring his subordinates towards one goal, namely goals that have been prepared by all members of the organization [49]. This is the same as the opinion of the results of research conducted that good leadership is leadership that can set an example for subordinates [50]. A leader in the organization must be able to create harmonious integration with employees, also including fostering cooperation, directing and encouraging the work passion of employees so as to create positive motivation that will lead to maximum intention and effort (performance) [51], [52]. It is certain that the behavior of a leader is influential and will lead to a separate understanding that will affect the psychological condition of employees, there are employees who see, observe, and imitate the behavior of leaders [53]. The behavior displayed by the leader is in accordance with what the employee expects, it will have a better impact on the quality of its performance, on the contrary, if the leadership behavior is not in accordance with the expectations it will have an unfavorable effect on employee performance. Thus, it is necessary to have a self-evaluation from the leader so that nurses who work in hospital institutions can imitate and make good examples for nurses.

The results of the research on the impact indicator show that the category is sufficient about the influence or consequences of the leadership of an organization. The theory states that leadership is the process of influencing others to facilitate the achievement of relevant organizational goals [54], [55]. Good leadership will strive to create continuous change, make a breakthrough leaving the past for a better future [53]. Leadership exerts influence in setting an organization or situation, producing meaningful influence, and having a direct impact on the accomplishment of a challenging goal or vision [56]. Taoritis states that to create a vision for an organization in a hospital, a nursing leader needs analytical skills, intuition, and creativity to synthesize the vision [57]. Leaders who have a clear vision and mission will make changes to the organization. Likewise, employees who are led by a visionary leader will have quality and quantity in their work.

4. CONCLUSION

Improving the quality of performance of nurses must pay attention to organizational factors and influencing leadership factors, with the most dominant factor being the quality of nurse resources. All predictor factors related to quality of nursing performance were tested simultaneously and showed a significant relation with the quality of nurses. The strongest results are shown in the quality of nurse resources. The factors that were most strongly associated with the quality of nursing performance were resources. In employing medical

personnel, hospitals need to recruit truly skilled and competent personnel, because health personnel with quality resources are in line with research results. If you want to improve the quality of maintenance services, the main thing that needs to be improved is the quality of nursing resources.

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